



File Code: 2530-3

Date: June 6, 2006

Lori Webber
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Dear Lori:

I appreciate the opportunity to comment on the Central Valley Regional Water Quality Control Boards' (Regional Board's) proposed *Amendment to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins for the Control of Nutrients in Clear Lake*. The purpose of the proposal is to address water quality impairments in the lake through establishment of a Total Maximum Daily Load (TMDL) for phosphorus (P) and development and execution of an implementation program and monitoring strategy.

Background

The draft TMDL proposes a 40% reduction in current phosphorous loading rates to the lake by 2016. A 60% reduction is proposed for the Middle/Scotts watershed, a large portion of which is managed by the Mendocino National Forest (MNF). Approximately 40% of the current load from this watershed would be reduced through a wetland restoration project downstream of the MNF, with the remaining 20% reduction accomplished through additional source control efforts.

As its contribution towards achieving these additional load reductions, the MNF is required, by December 31, 2011, to submit a plan to the Regional Board that includes:

- Estimates of phosphorus loading to the lake from various sources on the MNF, including: a) roads and trails, b) livestock grazing, c) wildfire and prescribed burns, d) timber harvest activities, and e) instream channel erosion.
- A description of previously implemented and planned actions to control phosphorus loading from these sources.
- An evaluation of their effectiveness, including an estimate of the resulting load reductions.

On December 31, 2016, the MNF is required to submit reports that provide progress updates on these tasks. The MNF is also required to conduct water quality monitoring to assess the effectiveness of its implementation activities and measure its phosphorus contributions to Clear Lake. Finally, the amendment requires that monitoring be conducted within the lake to assess the occurrence of nuisance algae blooms.



In general, with respect to its activities, the MNF believes this is a fairly reasonable approach to addressing impairments in the lake. However, we have several key concerns, which are described below.

Mendocino National Forest Concerns

Our first concern is related to the size of the proposed phosphorus reductions for the Middle/Scotts watershed. We believe that some reductions in erosion-related phosphorus export from the MNF can probably be achieved. We will not know precisely how much until we complete some of the required TMDL tasks. However, for two key reasons, we question whether a 20% reduction in total phosphorus (and therefore total erosion) could be achieved on MNF. First, TMDL's for other watersheds on the MNF (e.g., Upper Main Eel River Sediment TMDL) concluded that the forest was already below the sediment standards, which were set at 25% over natural background levels. This part of the forest resembles the Upper Main Eel watershed, so it is likely that current loading on the MNF lands in the Middle Creek watershed is less than 25% over background. Since MNF is not responsible for addressing natural erosion (State Water Board Resolution 2005-0050¹) and complete control of human-caused erosion is rarely feasible, a 20% reduction in overall loading from lands managed by the MNF is unlikely. Secondly, water chemistry data indicates phosphorus concentrations are naturally high and extremely variable and that recovery after soil disturbing events occurs relatively quickly². An important consideration for the Regional Board is that if a 20% reduction is not possible on MNF, to meet the TMDL, larger reductions from other sources in the Middle/Scotts watershed would be necessary. This may or may not be feasible.

Our second concern is related to prescribed fire and other fuel reduction activities. We understand that these activities can cause some relatively small increases in phosphorus export for short periods of time. However, when evaluating potential load reductions from MNF lands, we believe the long term benefits of these activities needs to be considered. Besides reducing wildfire risk to life and property, fuels reduction activities reduce the risk of large wildfire-induced increases in sediment and phosphorus export.

A third issue relates to monitoring. The MNF believes it is reasonable for land managers to evaluate the effectiveness of restoration activities through on-site, hillslope erosion control monitoring such as that conducted through the Forest Service *Best Management Practice Evaluation Program*. The MNF is also not opposed to conducting some limited trend monitoring of instream phosphorus levels, as specified by the TMDL, on or immediately downstream of its lands. However, we wish to illuminate the fact that it is highly unlikely that this monitoring will detect statistically significant trends in phosphorus loads. This is largely due to the fact that even if a 20% reduction were achievable, this amount is relatively small when compared to the high natural variability in phosphorus loading. Binkley (2001), for example, concluded that given high natural variations in streamwater chemistry between streams and

¹ Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options.

² Water chemistry information collected by Lake County after the 1996 Fork Fire showed phosphorus levels spiking after the first early rains in January, but recovering shortly thereafter. Specifically, on January 1, 1997, total P was 1.48 parts per million (ppm). These levels dropped to 0.25 ppm by January 22nd and 0.91 ppm on January 25th. In 1998, total P levels ranged from 0.16 to 0.91 ppm.

within the same stream over time, very intensive sampling designs are needed to detect any changes that are less than about two-fold.³

Our largest concern regarding monitoring is related to the proposed lake monitoring program. The MNF understands the benefits of the proposed program. However, the Forest Service would not be able to implement or fund this work because the agency is typically only allowed to allocate National Forest System (NFS) funding towards activities on national forests. In some limited circumstances, monies can be expended on private lands (e.g., Widen Amendment, 16 U.S.C. § 1011(a) and P.L. 105-227 § 323). However, this can only occur when the projects benefit NFS lands or resources. The proposed lake monitoring does not meet these criteria because, due to the lake's significant distance from the forest boundary (11 miles), monitoring results would not provide any additional information regarding the effectiveness of its land management practices, nor total phosphorus loading from its lands.

To conclude, the MNF believes that cooperative efforts by numerous parties in the Clear Lake watershed have made significant contributions towards restoring water quality. Lake water clarity has been improving since 1991 due to implementation of numerous and varied watershed restoration projects. We are hopeful that the Regional Boards' efforts will maintain and enhance this cooperative approach. The MNF is committed to doing its fair share to reduce phosphorus loading to the lake to the degree feasible. However, our ability to implement restoration activities according to the identified schedule is contingent upon appropriations from Congress, which are uncertain. We plan to continue to try and supplement this funding with grants and hope the Regional Board will support those efforts.

Sincerely,

/s/ *Arthur Quintana* (for)
THOMAS A. CONTRERAS
Forest Supervisor

cc: Brian Staab

³ Binkley, D. 2001. Patterns and processes of variation in nitrogen and phosphorus concentrations in forested streams. National for Air and Stream Improvement, Technical Bulletin No. 836.